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**WEST**

Generate Collection

L10: Entry 30 of 132

File: USPT

Dec 26, 2000

DOCUMENT IDENTIFIER: US 6167440 A

TITLE: Communication startup processing system

CLPR:

13. A computer readable storage medium storing a process controlling a computer of making a connection required for mutual communications with a user terminal to communicate with, and starting a connection processing device according to control information included in said control message and connecting again to a user terminal which has issued a connection request and which is indicated by destination information included in said control message so that a connection occurs via the Internet between users, and so that each user is responsible for paying access charges to its own network service provider.

CLPR:

14. A computer readable storage medium storing a process controlling a computer of receiving a control message representative of a connection request from another user terminal, connecting again, in response to said control message, to a user terminal which has issued a connection request and which is indicated by destination information included in said control message, starting a connection processor of a user terminal according to control information included in said control message, and energizing a power supply of the user terminal based on said control information, so that a connection is established between users via the Internet, and so that each user is responsible for paying access charges to its own network service provider.

CLPR:

15. A computer readable storage medium storing a process controlling a computer in response to a connection request from a user terminal through a communication path via a network service provider apparatus using a public circuit, of transmitting control information and destination information to a user terminal to be connected to through said public circuit to another user terminal, and connecting said user terminal and said other user terminal to each other through said communication path via the Internet, and so that each user is responsible for paying access charges to its own network service provider.

CLPV:

an introduction processor, connected to said public circuit and



said communication path and responsive to a connection request from another user terminal through said communication path, transmitting a control message including control information and destination information of the other user terminal, to said communication processor of the user terminal indicated by said connection request so that a connection is set up between two users via the Internet, so that each user is responsible for paying access charges to its own network service provider.

CLPV:

a communication processing device responsive to a request, received through the public circuit, to establish the communication path via the network service provider apparatus, starting a connection processing device of a user terminal connected thereto and establishing the communication path via the Internet, so that each user is responsible for paying access charges to its own network service provider.

CLPV:

establishing, by said first user terminal, a communication path via the Internet using the public circuit based on said control information, and connecting the first user terminal to said second user terminal through the communication path, and so that each user is responsible for paying access charges to its own network service provider.

**WEST**Generate Collection

L10: Entry 33 of 132

File: USPT

Dec 19, 2000

DOCUMENT-IDENTIFIER: US 6163808 A

TITLE: Network adjusts cell transfer capacity in response to a change in the actual bit rate relative to the nominal bit rate

BSPR:

Conducting commerce over the Internet and other networks is a practice that is gaining acceptance and popularity. By way of example, traditional on-line services, such as those offered by Internet providers, typically charge customers a monthly fee for access to basic services and resources, such as proprietary and public databases of information. Such traditional service providers also advertise any number of products or services which are purchasable on-line by the user.



**WEST** Generate Collection

L10: Entry 45 of 132

File: USPT

Jul 4, 2000

DOCUMENT-IDENTIFIER: US 6085179 A

TITLE: Method of charging for a communications service, as well as a charge computer, exchange, and communications network

BSPR:

The use of telecommunications (TK) services, for example telephoning, telefaxing, access to data base systems and such, is not as a rule without cost for the user, but is charged to the customer by the service provider by means of rate-based fees. In addition to fixed basic charges, most bills also contain usage-dependent amounts of fees for the use of chargeable services, where the latter often make up the lion's share of the bill. The usual way of rating in telecommunications is described for example in the "Textbook of Telecommunications" volume 1, Technical Publishers Schiele & Schon GmbH, Berlin 1986, pages 614 to 620.

**WEST**

Generate Collection

L10: Entry 51 of 132

File: USPT

Apr 18, 2000

DOCUMENT-IDENTIFIER: US 6052730 A

TITLE: Method for monitoring and/or modifying web browsing sessions

## DEPR:

Another important application of the present invention is for monitoring and assessing access to specific resource materials or databases on the web. The gateway server, for example, can be used as a "toll booth" that allows access to and charges for access to various web content. The content vendor machines can be configured to refuse access to requests from any server except the gateway server. Clients registered with the gateway server can then access the web content provider only through the gateway server which tracks and charges the client for access to the various resources. The key benefit to this approach is that the content provider can be organizationally and technically separate from the toll collector. Moreover, a single Lamprey server can act as a toll booth for any number of third party sites. This arrangement also has the advantage that the content vendors do not need to register users, limit access in complicated ways, or keep track of charges. The advantage to the users, on the other hand, is that they obtain easy access to data from a variety of different content providers through registration with and payment to the single gateway site.



**WEST**[Generate Collection](#)

L10: Entry 53 of 132

File: USPT

Apr 11, 2000

DOCUMENT-IDENTIFIER: US 6049821 A

TITLE: Proxy host computer and method for accessing and retrieving information between a browser and a proxy

## DEPR:

Access to the Internet is often provided by a service provider which may charge the user a fee based on the amount (e.g., kilobytes) of data transferred. When a user clicks on an HTML link the physical size of the information requested is not provided in advance to the user. As a result, users may unwittingly request and receive very large quantities of data (e.g. image files) in which they may have only a passing interest, or which may contain material they would like to filter out (e.g. pornography), and for which they may be charged. It would be desirable if, at the user's request, a proxy could reduce in some fashion the amount of the information before it is delivered to the user's browser. It would also be desirable if the proxy could provide to the browser an advance indication of the characteristics (e.g., size, content, etc.) of the information before it is transferred.

**WEST**Generate Collection

L10: Entry 74 of 132

File: USPT

Nov 9, 1999

DOCUMENT-IDENTIFIER: US 5983282 A

TITLE: Method and system for computer network access using cooperating non-dedicated remote access servers

## BSPR:

A variety of computing devices are often accessed together to form a "computer network." The computer network may be a Local Area Network ("LAN") that access devices over a small geographical area, or a Wide Area Network ("WAN") that access devices over a large geographical area. A user with a computer and a telephony device such as a modem may establish a connection to a desired computer network (e.g., the Internet, an intranet, or another computer network) using a Public Switched Telephone Network ("PSTN"). The PSTN is any of those provided by AT&T, GTE, a Regional Bell Operating Company and others comprising multiple switching offices. Access to a desired computer network (e.g., the Internet) is provided by a network access service provider (e.g., America-On-Line, Netcom, etc.), which charge a user a fee to use dedicated access equipment to provide access to the desired computer network.



**WEST**

Generate Collection

L10: Entry 122 of 132

File: USPT

Apr 7, 1998

DOCUMENT-IDENTIFIER: US 5737414 A

TITLE: 900 number billing and collection system and method for on-line computer services

**ABPL:**

A billing and collection system for enabling payment for a service provided over a data network by billing a customer for a telephone connection to a shared revenue billing network where the telephone connection to the billing network regulates access to the service provided over the data network, comprising: a data network including at least one user on-line service provider presenting at least one service for on-line access by a user with a user computer through the data network, a billing network and an access management computer for controlling access to the on-line service provider and billing the user for access to the on-line service provider, the access management computer communicating with the data network for enabling and terminating access to the on-line service provider through the user computer whereby the billing network shares revenues for the telephone connection with the on-line service provider.

**BSPR:**

One of the key problems with on-line services (the "Internet") as it relates to commerce is the difficulty of Internet information service providers ("on-line service providers") to charge users per-minute, incremental or flat fees for usage. One way these fees are charged for access to various on-line service providers is by simply billing the user's on-line service account when such an account exists.

**BSPR:**

In summary, there exists a problem that casual short-term or single usage visits to a on-line service provider on a computer network cannot be charged for access on a per-minute or fractional basis in an economical manner for both the on-line service provider and the user.

**BSPR:**

In yet another embodiment of the invention, the system utilizes the 900# billing network as a on-line service provider gateway. The system operates similarly to the embodiment described above, but does not require that the communications be separated between the data network and the voice network. The user computer can access the voice network and data network directly through a single telephone connection. In this



connection, the user computer operates in the same manner to provide access to a particular on-line service provider by enabling the same with an access message. The billing network provides for billing the user for as long as the access computer keeps the on-line service provider open for that access message, or for some predetermined amount of time. The user may then be billed a single aggregate charge for the on-line service provider or on-line service providers accessed. In an alternative single communication channel embodiment, the access message may be authenticatable whereby it is generated by the user computer using known encryption protocols and is communicated to the on-line service provider through the data network whereupon it is read and authenticated (decrypted) by the on-line service provider for access. In this regard, the authenticatable access message may contain user specified limitations as to desired access time and maximum cost to be incurred for any session.

**BSPR:**

Alternatively, the billing provider may be disposed on the Internet itself in the form of a dedicated billing site. The billing site serves as a gateway to all of the networked on-line service providers and regulates all billing for and access thereto. The billing site has an access management computer associated therewith which facilitates access to the on-line service providers and communicates with a billing system. The billing system bills access charges to the user's on-line service account. When a user desires to obtain access to an on-line service provider, he or she is prompted by the billing site to enter a message ID associated with the user's on-line billing account. The billing site then provides an anonymous access message to the particular on-line service provider to which access is requested. The on-line service provider may have its own computer which records the amount of time access is made available for any given session. Similarly, the access management computer at the billing site may do the same to serve as a redundant audit trail. The access management computer continuously monitors the connection. When the user desires to terminate access to the on-line service provider, the access management computer sends a termination message to the on-line service provider to terminate user access. The process may be repeated if the user desires access to another on-line service provider. The billing site accumulates bills for all on-line service provider sessions, and then bills the user through the billing system in a conventional manner. Since the charges for various on-line service providers may vary, the billing site can bill the user a single aggregate charge for all on-line service providers accessed during any given period of time, even if the individual charges differ among all of the on-line service providers.

**DEPR:**

The main advantage provided by these embodiments of the present invention is the separation through parallel communication channels of the flow of money from the flow of information through the computer network, enabling small billing charges for access to the on-line service providers to be collected.



by a billing network or service bureau which then shares a percentage of the collected revenues with the on-line service providers 27. Another advantage realized by billing for services on the Internet 18 in this fashion, is the elimination of the risk of an unauthorized party obtaining access to a user's credit card number or information regarding the form of payment. The user is simply billed for the 900 call(s) in his or her monthly telephone statement. The information transaction is made easier and less time consuming, and overall billing costs are reduced.

**DEPR:**

Referring now to FIG. 4, there is depicted a second principal embodiment 10' of the invention where the data network and billing network function essentially as a single entity. The billing network 19 thus serves as a on-line service provider gateway. In this regard, the user computer 22 communicates over a single telephone line 26 with the telephone network and obtains access to the Internet 18 by dialing the 900# 35. When access to a specific on-line service provider is desired, the access management computer generates or retrieves an access message 39 as described above. This access message 39 is communicated to the on-line service provider 27 to enable access to the on-line service provider 27 for the user. The access management computer 12 also sends the access message 39 to the billing network 19 to enable a billing charge to be made in connection with opening the on-line service provider 27 for the user. Here again, the billing network 19 can generate a fixed charge for the particular session, or can generate a per-minute or incremental charge based upon the amount of time that the user spends browsing the on-line service provider. When the user desires to end a session, he or she leaves the on-line service provider 27 by following instructions associated with the on-line service provider 27, causing the on-line service provider 27 to either send a termination message 41 to the access management computer 12 and the billing network 19, or if the access management computer 12 continuously monitors access to that particular on-line service provider 27 for that particular access message 39, the access management computer 12 will signal the billing network 19 that billing for that session is to be completed. The user is billed for access to the on-line service provider as described with respect to the first principal embodiment. However, in this embodiment, the user may be billed for all time on the 900 line, plus the costs of access to any of the on-line service providers 27. Since different on-line service providers may charge different amounts for access, such charges could be itemized on the user's bill for calls made to the billing network. In an alternative single communication channel embodiment, the access message 39 may be authenticatable whereby it is generated by the user computer using known encryption protocols and is communicated to the on-line service provider 27 through the data network 18 whereupon it is read and authenticated (decrypted) by the on-line service provider 27 for access. In this regard, the authenticatable access message may contain user specified limitations as to desired access time and maximum cost to be incurred for any session.



DEPR:

Referring now to FIGS. 7 and 8, in a fourth principal embodiment of the invention, the user computer 22 communicates through the telephone network 16 with an access billing site ("billsite") 45 which regulates all billing for and access to the information service on-line service providers 27. The billing site 45 has an access management computer 12 associated therewith which facilitates access to the on-line service providers 27 and communicates with a billing system 34. The billing system 34 bills access charges to the user's on-line service account 50. When a user desires to obtain access to an on-line service provider 27, he or she is prompted by the billsite 45 to enter a message ID 49 associated with the user's on-line billing account 50. The billsite then provides an anonymous access message 52 to the particular on-line service provider 27 to which access is requested. The on-line service provider 27 may have its own computer 52 which records the amount of time access is made available for any given session. Similarly, the access management computer 12 at the billsite 45 may do the same to serve as a redundant audit trail. The access management computer associated with the billsite 45 continuously monitors the connection. When the user desires to terminate access to the on-line service provider 27, the access management computer 12 sends a termination message 56 to the on-line service provider 27 to terminate user access. The process may be repeated if the user desires access to another on-line service provider 27. The billsite 45 accumulates bills for all on-line service provider sessions, and then bills the user through the billing system 34 in a conventional manner. Since the charges for various on-line service providers 27 may vary, the billsite 45 can bill the user a single aggregate charge for all on-line service providers accessed during any given period of time, even if the individual charges differ among all of the on-line service providers.



**WEST****End of Result Set**Generate Collection

L5: Entry 1 of 1

File: USPT

Dec 12, 2000

DOCUMENT-IDENTIFIER: US 6161012 A

TITLE: Short code dialling

## DEPR:

This enhances the service to the subscriber by adding value to the call setup procedure through a personalised welcome page, access to user-specific data, etc., and by simplifying the charging since the user can receive the PSPDN (Packet Switched Public Data Network) charges through the GSM network account.

**WEST****End of Result Set**☐ Generate Collection

L5: Entry 1 of 1 File: USPT Dec 12, 2000

US-PAT-NO: 6161012

DOCUMENT-IDENTIFIER: US 6161012 A

TITLE: Short code dialling

DATE-ISSUED: December 12, 2000

## INVENTOR-INFORMATION:

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US-CL-CURRENT: 455/432; 455/564, 455/565



**WEST****End of Result Set**☐ Generate Collection

L9: Entry 1 of 1

File: USPT

Dec 12, 2000

DOCUMENT-IDENTIFIER: US 6161012 A

TITLE: Short code dialling

## DEPR:

This enhances the service to the subscriber by adding value to the call setup procedure through a personalised welcome page, access to user-specific data, etc, and by simplifying the charging since the user can receive the PSPDN (Packet Switched Public Data Network) charges through the GSM network account.

**WEST**

Generate Collection

L10: Entry 3 of 132

File: USPT

Aug 7, 2001

DOCUMENT-IDENTIFIER: US 6272535 B1

TITLE: System for enabling access to a body of information based on a credit value, and system for allocating fees

## DEPR:

Once the charge distributor 18 receives confirmation from the accounting apparatus 11 that access to the information PP is permitted to the user, and is advised as to the amount being charged for the access, then charge distributor 18 assigns part of the charge to each service provider involved in the transaction, according to a predetermined formula.

(Alternatively, instead of a predetermined formula that applies to all transactions, it is within the scope of the invention for the charge distributor 18 to determine the allocation of revenue in other fashions, e.g., selecting from among several formulas that are to apply in various circumstances.)

## DEPR:

After that, the frequency (contents of memory 24) will be updated to take account of the most recent use. More specifically, if the ordered informatoin PP is, say, a movie two hours long, and the terminal 10 measures only one hour of use of that information, the user is able to access that same body of information again for up to another hour, at no extra charge. Alternatively, the information provider may permit a user who has ordered the informaioin PP to access it a specified number of times, say up to five, with a reduced charge for the second through fifth accesses. In such case, memory 24 keeps track of the five accesses. Thus, a user can more conveniently watch a long movie, or can load a complicated package of software in installments.



**WEST**

Generate Collection

L10: Entry 6 of 132

File: USPT

Jun 26, 2001

DOCUMENT-IDENTIFIER: US 6253193 B1

TITLE: Systems and methods for the secure transaction management and electronic rights protection

## BSPR:

Use of bitmap meters (including "regular" and "wide" bitmap meters) to record usage and/or purchase of information, in conjunction with other elements of the preferred embodiment of the present invention, uniquely supports efficient maintenance of usage history for: (a) rental, (b) flat fee licensing or purchase, (c) licensing or purchase discounts based upon historical usage variables, and (d) reporting to users in a manner enabling users to determine whether a certain item was acquired, or acquired within a certain time period (without requiring the use of conventional database mechanisms, which are highly inefficient for these applications). Bitmap meter methods record activities associated with electronic appliances, properties, objects, or portions thereof, and/or administrative activities that are independent of specific properties, objects, etc., performed by a user and/or electronic appliance such that a content and/or appliance provider and/or controller of an administrative activity can determine whether a certain activity has occurred at some point, or during a certain period, in the past (for example, certain use of a commercial electronic content product and/or appliance). Such determinations can then be used as part of pricing and/or control strategies of a content and/or appliance provider, and/or controller of an administrative activity. For example, the content provider may choose to charge only once for access to a portion of a property, regardless of the number of times that portion of the property is accessed by a user.

**WEST**

Generate Collection

L10: Entry 7 of 132

File: USPT

Jun 26, 2001

DOCUMENT-IDENTIFIER: US 6252869 B1

TITLE: Data network security system and method

BSPR:

It may be understood that the lack of a secure transaction mechanism limits the further development of the Internet, the availability of service providers to users, and particularly the viability of smaller SPs. It is known that in addition to providing gateway access to the Internet and the thousands of small service providers around the world, large information service providers such as Prodigy, America Online and Compuserve provide their own information and interactive services. Users may also access the Internet and the thousands of smaller information service providers (ISPs) directly through smaller user-local Internet access providers. Generally, the large information service providers bill their customers on a time-usage basis after a financial payment relationship has been established, with the user/customer receiving a monthly bill which may include additional charges for usage of certain information and services and which is paid via the conventional postage system. Similarly, the smaller user-local Internet access providers usually also base their service charges to their subscribers for access to the Internet on a time-usage basis.

BSPR:

The smaller ISPs, however, currently either do not charge for access to their information and interactive services, or, if they do, also require the user to establish some sort of financial relationship whereby the user subscribes to the ISP and pays a bill via the conventional postage system. A frequent user of a particular established ISP may not be adverse to establishing a financial relationship for payment purposes. Typically, however, and in accordance with a fundamental concept of using the Internet (e.g., "surfing the net" using Web browsers which link websites by hypertext), a user accesses many different ISPs, each on only a casual and often unanticipated basis, and is not likely to want or be able to establish a plethora of financial relationships with so many different providers. ISPs that do or want to charge for access to their information and/or interactive services could do so by requiring the user to input their credit card number before data service is provided. Yet, as discussed above, users are loath to sending credit card information over the Internet, and therefore, would likely eschew such ISPs, who are typically smaller ISPs.



## DEPR:

As previously discussed, charging for the information and/or interactive services that can be provided to a user from an ISP, such as ISP 101, can present a problem if the user has not established a financial billing relationship with the ISP. Establishing such a relationship, or alternatively arranging payment by credit card over the Internet is likely to impose an impediment to a user who desires to access ISP 101. Generally, because of the lack of an acceptable, secure payment mechanism, many ISPs today do not charge for access to their information and/or interactive services, even though a substantial benefit is provided to their users. Thus, the establishment of a simple, secure payment mechanism can be of substantial financial value to an ISP who may receive hundreds, if not thousands, of requests for information and/or interactive services each day. Furthermore, charging the user a fair fee for access to information and/or interactive services that users consider of value will not likely hinder the user from accessing the ISP that may have previously provided free access. Moreover, many smaller ISPs which previously requested credit card information for accessing their services, may experience increased requests and concomitant payment for their information because users will not be disinclined to send credit card information for payment. The increased demand may encourage further entry of new SPs into the market, and thus may reduce user/consumer costs by increasing competition.

## DEPR:

In accordance with the present invention, communication of credit card or other sensitive information (including electronically deliverable goods/services) between a user and an ISP on the Internet (or other data network) is effected by a separate telephone call connection (i.e., over the public switched telephone network) established between the user's Internet access provider and the ISP. The establishment of the telephone connection is initiated in response to actions of the user. For instance, the user may explicitly request a secure communication link or the user may request a page from the ISP that involves credit card or sensitive information. Alternatively, the user may send credit card or other payment information to the ISP to purchase electronically-deliverable goods/services from the ISP but may choose to forego an option of requesting a secure communication link for sending the credit card or payment information to the ISP; nevertheless, in response to this payment, the terminating ISP may choose to complete the transaction (i.e., by sending the electronically-deliverable good/services to the user) over a secure communication link. The Internet's access provider or the terminating ISP may first recognize that the user's actions require establishing the separate telephone connection. In any event, the telephone connection may be established according to the user's originating Internet access SP calling the terminating ISP, resulting in the telephone connection charges being incurred by the originating Internet access SP and passed along to the user according to the normal established billing arrangement. Alternatively, the telephone connection may be

established according to the terminating SP calling the originating SP, resulting in the telephone connection charges being incurred by the terminating SP (unless charges are "reversed" by, for example, using a special access number), who may account for such costs in charges to users. After the telephone connection is established, it is used for communicating the sensitive information, after which the telephone connection is terminated.

DEPR:

Actions by the user at terminal 104 implicitly or explicitly result in a request for access to a secure page for communication of credit card information to ISP 101. (step 401). For instance, a user browsing the web may encounter the web site associated with ISP 101 which may require payment for searching any information it contains (i.e., for accessing the web site). Immediately upon this encounter, ISP 101 queries the user whether the user wishes to proceed with the search of the web site by paying a specified access charge. If the user responds affirmatively, the user has implicitly requested a secure page since the ISP 101 recognizes that the secure page is needed for communicating credit card payment information. Alternatively, ISP 101 may allow the user to search the web site information for free, but may require payment for any, or certain, information that the user wishes to download. Then, upon the user's confirmed request for downloading specified information (e.g., documents, files, etc.), the user has implicitly requested a secure page since the ISP 101 recognizes that a secure page must be provided for payment.

DEPR:

It is understood that rather than having Internet access provider 107 call ISP 101, ISP 101 could call Internet access provider 107 at a number provided to ISP 101 in conjunction with confirming DNS support. However, it is preferable that Internet access provider 107 place the call to a phone number provided by ISP 101 in order to thwart an eavesdropper who intercepts the phone number information and, if the phone number were transmitted from Internet access provider 107 to ISP 101, could rapidly place a phone call to the Internet access provider 107 before ISP 101 places the call, and pretend to be ISP 101, thereby receiving the credit card or sensitive information from Internet access provider 101. Further, it is more convenient for Internet access provider 107 to place the call so that the associated telephone charges can be easily billed to the user.



**WEST**

Generate Collection

L10: Entry 12 of 132

File: USPT

May 29, 2001

DOCUMENT-IDENTIFIER: US 6240091 B1

TITLE: Implementation of access service

## BSPR:

The problem in a network of the type described above is how the end user is charged for the access service (i.e. for the use of the subscriber line) when he or she uses the services provided by the service systems, for example, Internet services. It is desirable that the charging is based on time or the volume of transmitted data, or both. The problem is caused, firstly, by the fact that the network can be connectionless. In other words, in this case the network does not feature messages for establishing and releasing a connection (such as SETUP and RELEASE), so the charging cannot be performed in the manner of the current telephone network on the basis of connection setup and release events. Secondly, the manufacturers of xDSL modems have not equipped their devices so that they could be used for charging on the basis of time or the volume of data transmitted. So it is not possible to query the modems for the information required for charging.



**WEST**☐ Generate Collection

L10: Entry 18 of 132

File: USPT

Mar 6, 2001

DOCUMENT IDENTIFIER: US 6199114 B1

TITLE: Initiating a user session at an internet terminal using a smart card

BSPR:

Internet access providers generally charge an hourly or monthly fee for a user account. Due, at least in part, to the cost of such an account, many people are still without access to the Internet and the Web. In fact, these costs may be incentive enough for some people to break into user accounts to gain access to the Internet services such as chat and electronic mail (e-mail). Others apparently find pleasure in gaining access to another's account.



**WEST**

Generate Collection

L10: Entry 20 of 132

File: USPT

Mar 6, 2001

DOCUMENT-IDENTIFIER: US 6198738 B1

TITLE: Communications between the public switched telephone network and packetized data networks

## BSPR:

A further problem is encountered in processing calls from a station connected to a public switched telephone network (PSTN) to a terminal connected to a data network such as the Internet. Broadly speaking, such calls can be completed by connecting the PSTN station to a PSTN terminal of a gateway and, in the Internet, connecting an Internet terminal of the gateway to the terminating Internet terminal. The gateway is provided with a vocoder for each conversation supported by the gateway, to translate between voice signals from/to the PSTN station and packetized voice signals to/from the Internet terminal. In the case of Internet customers who receive a TIPA each time they register, whose TIPA must be obtained in order to complete the call, and who wish to be directly accessible from a PSTN telephone without requiring a preliminary telephone call, the same problem is encountered, i.e., the inability to obtain the TIPA assigned to an Internet terminal. Note that in order to minimize access charges for the calling PSTN customer, it is desirable that the PSTN customer access the closest gateway, which has access to multiple DDS or ULS servers owned by multiple service providers. Accordingly, a problem of the prior art is that there is no satisfactory arrangement for completing calls between a caller connected to the PSTN and an Internet or similar network station which has a temporary address such as a TIPA.



**WEST** Generate Collection

L10: Entry 23 of 132

File: USPT

Feb 6, 2001

DOCUMENT-IDENTIFIER: US 6185413 B1

TITLE: Mobile station having a cost-efficient call management method and system

BSPR:

In addition to the actual mobile radio network operators, there are some service providers which purchase access to the corresponding mobile radio networks and then offer their services as chargeable services to the ultimate customer.



**WEST**

Generate Collection

L10: Entry 26 of 132

File: USPT

Jan 9, 2001

DOCUMENT IDENTIFIER: US 6173407 B1

TITLE: Method of authenticating and charging a client using a web infoshop service system

## ABPL:

A method of authenticating and charging a client using a web infoshop service system comprising the steps of: transmitting protocol address information from the service system to the client when the client accesses the service system and selects a protocol access; when a user request to the service system is for a charged content provider, adding an authentication value to the user request, transmitting the user request including the authentication value from the service system to the charged content provider, and transmitting information corresponding to the user request from the content provider to the client; and when the client cancels the protocol access and notifies cancellation information to the service system, transmitting charging information using the service system.

## BSPR:

To achieve these and other advantages and in accordance with the purpose of the present invention, as embodied and broadly described, a method of authenticating and charging a client using a web infoshop service system includes the steps of: transmitting protocol address information from the service system to the client when the client accesses the service system and selects a protocol access; when a user request to the service system is for a charged content provider, adding an authentication value to the user request, transmitting the user request including the authentication value from the service system to the charged content provider, and transmitting information corresponding to the user request from the content provider to the client; and when the client cancels the protocol access and notifies cancellation information to the service system, transmitting charging information using the service system.

**WEST**

Generate Collection

L10: Entry 9 of 132

File: USPT

Jun 19, 2001

DOCUMENT-IDENTIFIER: US 6249865 B1

TITLE: Systems and methods for a user to access digital data provided by an on-line server over a data network

BSPR:

One of the key problems with on-line services (the "Internet") as it relates to commerce is the difficulty of Internet information service providers ("on-line service providers") to charge users per-minute, incremental or flat fees for usage. One way these fees are charged for access to various on-line service providers is by simply billing the user's on-line service account when such an account exists.

BSPR:

In summary, there exists a problem that casual short-term or single usage visits to a on-line service provider on a computer network cannot be charged for access on a per-minute or fractional basis in an economical manner for both the on-line service provider and the user.

BSPR:

In yet another embodiment of the invention, the system utilizes the 900# billing network as a on-line service provider gateway. The system operates similarly to the embodiment described above, but does not require that the communications be separated between the data network and the voice network. The user computer can access the voice network and data network directly through a single telephone connection. In this connection, the user computer operates in the same manner to provide access to a particular on-line service provider by enabling the same with an access message. The billing network provides for billing the user for as long as the access computer keeps the on-line service provider open for that access message, or for some predetermined amount of time. The user may then be billed a single aggregate charge for the on-line service provider or on-line service providers accessed. In an alternative single communication channel embodiment, the access message may be authenticatable whereby it is generated by the user computer using known encryption protocols and is communicated to the on-line service provider through the data network whereupon it is read and authenticated (decrypted) by the on-line service provider for access. In this regard, the authenticatable access message may contain user specified limitations as to desired access time and maximum cost to be incurred for any session.



## BSPR:

Alternatively, the billing provider may be disposed on the Internet itself in the form of a dedicated billing site. The billing site serves as a gateway to all of the networked on-line service providers and regulates all billing for and access thereto. The billing site has an access management computer associated therewith which facilitates access to the on-line service providers and communicates with a billing system. The billing system bills access charges to the user's on-line service account. When a user desires to obtain access to an on-line service provider, he or she is prompted by the billing site to enter a message ID associated with the user's on-line billing account. The billing site then provides an anonymous access message to the particular on-line service provider to which access is requested. The on-line service provider may have its own computer which records the amount of time access is made available for any given session. Similarly, the access management computer at the billing site may do the same to serve as a redundant audit trail. The access management computer continuously monitors the connection. When the user desires to terminate access to the on-line service provider, the access management computer sends a termination message to the on-line service provider to terminate user access. The process may be repeated if the user desires access to another on-line service provider. The billing site accumulates bills for all on-line service provider sessions, and then bills the user through the billing system in a conventional manner. Since the charges for various on-line service providers may vary, the billing site can bill the user a single aggregate charge for all on-line service providers accessed during any given period of time, even if the individual charges differ among all of the on-line service providers.

## DEPR:

The main advantage provided by these embodiments of the present invention is the separation through parallel communication channels of the flow of money from the flow of information through the computer network, enabling small billing charges for access to the on-line service providers 27 to be collected by a billing network or service bureau which then shares a percentage of the collected revenues with the on-line service providers 27. Another advantage realized by billing for services on the Internet 18 in this fashion, is the elimination of the risk of an unauthorized party obtaining access to a user's credit card number or information regarding the form of payment. The user is simply billed for the 900 call(s) in his or her monthly telephone statement. The information transaction is made easier and less time consuming, and overall billing costs are reduced.

## DEPR:

Referring now to FIG. 4, there is depicted a second principal embodiment 10' of the invention where the data network and billing network function essentially as a single entity. The billing network 19 thus serves as a on-line service provider gateway. In this regard, the user computer 22 communicates over a single telephone line 26 with the telephone network and

obtains access to the Internet 18 by dialing the 900# 35. When access to a specific on-line service provider is desired, the access management computer generates or retrieves an access message 39 as described above. This access message 39 is communicated to the on-line service provider 27 to enable access to the on-line service provider 27 for the user. The access management computer 12 also sends the access message 39 to the billing network 19 to enable a billing charge to be made in connection with opening the on-line service provider 27 for the user. Here again, the billing network 19 can generate a fixed charge for the particular session, or can generate a per-minute or incremental charge based upon the amount of time that the user spends browsing the on-line service provider. When the user desires to end a session, he or she leaves the on-line service provider 27 by following instructions associated with the on-line service provider 27, causing the on-line service provider 27 to either send a termination message 41 to the access management computer 12 and the billing network 19, or if the access management computer 12 continuously monitors access to that particular on-line service provider 27 for that particular access message 39, the access management computer 12 will signal the billing network 19 that billing for that session is to be completed. The user is billed for access to the on-line service provider as described with respect to the first principal embodiment. However, in this embodiment, the user may be billed for all time on the 900 line, plus the costs of access to any of the on-line service providers 27. Since different on-line service providers may charge different amounts for access, such charges could be itemized on the user's bill for calls made to the billing network. In an alternative single communication channel embodiment, the access message 39 may be authenticatable whereby it is generated by the user computer using known encryption protocols and is communicated to the on-line service provider 27 through the data network 18 whereupon it is read and authenticated (decrypted) by the on-line service provider 27 for access. In this regard, the authenticatable access message may contain user specified limitations as to desired access time and maximum cost to be incurred for any session.

#### DEPR:

Referring now to FIGS. 7 and 8, in a fourth principal embodiment of the invention, the user computer 22 communicates through the telephone network 16 with an access billing site ("billsite") 45 which regulates all billing for and access to the information service on-line service providers 27. The billing site 45 has an access management computer 12 associated therewith which facilitates access to the on-line service providers 27 and communicates with a billing system 34. The billing system 34 bills access charges to the user's on-line service account 50. When a user desires to obtain access to an on-line service provider 27, he or she is prompted by the billsite 45 to enter a message ID 49 associated with the user's on-line billing account 50. The billsite then provides an anonymous access message 52 to the particular on-line service provider 27 to which access is requested. The on-line service provider 27 may have its own computer 52 which records the



amount of time access is made available for any given session. Similarly, the access management computer 12 at the billsite 45 may do the same to serve as a redundant audit trail. The access management computer associated with the billsite 45 continuously monitors the connection. When the user desires to terminate access to the on-line service provider 27, the access management computer 12 sends a termination message 56 to the on-line service provider 27 to terminate user access. The process may be repeated if the user desires access to another on-line service provider 27. The billsite 45 accumulates bills for all on-line service provider sessions, and then bills the user through the billing system 34 in a conventional manner. Since the charges for various on-line service providers 27 may vary, the billsite 45 can bill the user a single aggregate charge for all on-line service providers accessed during any given period of time, even if the individual charges differ among all of the on-line service providers.